

10/558,890
PHCF-04045US
HIR.164

REMARKS

Claims 6-25 are all the claims presently pending in the application. Claims 7-13 have been amended to more particularly define the claimed invention. Claims 14-25 have been added.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 6-11 stand rejected under 35 U. S. C. §102(b) as allegedly unpatentable over Okada et al. (JP 55-22768). Claims 12 and 13 stand rejected under 35 U. S. C. §103(a) as allegedly unpatentable over Okada in view of Gorni et al. (U. S. 6,816,659).

These rejections are respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as recited, for example, in claim 1) is directed to an optical fiber coiled cord, including an optical fiber cord spirally bent for having a coil shape for being longitudinally stretchable, and a stretch length control member for limiting a longitudinal elongation of the optical fiber cord (Application at Figures 5, 6(a) and 6(b); page 10, line 3-page 11, line 29).

In conventional optical fiber coiled cords, a tensile force on the cord may break the cord or the optical connectors formed on the ends of the cord (Application at page 3, lines 19-26).

The claimed invention, on the other hand, includes a stretch length control member for limiting a longitudinal elongation of the optical fiber cord (Application at Figures 5, 6(a) and 6(b); page 10, line 3-page 11, line 29). This may help to inhibit a breakage of the cord or any connector connected to the cord (Application at page 11, lines 21-29).

10/558,890
PHCF-04045US
HIR.164

II. THE ALLEGED PRIOR ART REFERENCES

A. Okada

The Examiner alleges that Okada teaches the invention of claims 6-11. Applicant submits, however, that there are features of the claimed invention that are not taught or suggested by Okada.

Okada discloses an optical transmission wire that is intended to have less possibility for disconnection by applying a synthetic high polymer material, cushion material and further armor of high polymer material on the outside of an optical fiber (Okada at Abstract).

However, Applicant submits that Okada does not teach or suggest "*a stretch length control member for limiting a longitudinal elongation of said optical fiber cord*", as recited, for example, in claim 6 (Application at Figures 5, 6(a) and 6(b); page 10, line 3-page 11, line 29). As noted above, this may help to inhibit a breakage of the cord or any connector connected to the cord (Application at page 11, lines 21-29).

Clearly, this feature is not taught or suggested by Okada.

Indeed, an optical fiber coiled cord according to the claimed invention may include a stretch length control member for limiting a longitudinal elongation (e.g., see claim 6). Further, the stretch length control member may be inserted through inside the spiral of a spiral coiled cord (e.g., see claims 10, 11). Still further, the stretch length control member may include, for example, a ball chain (e.g., claim 14). Nowhere are these features taught or suggested by Okada.

As described on page 10, line 9 to page 11, line 29 of the present application, in an exemplary aspect of the claimed invention, even if an excessive tensile force is applied in a longitudinal direction of the optical fiber coiled cord, the optical fiber coiled cord may not be elongated greater than the maximum elongation length, since the elongation may be limited by the stretch length control member. Therefore, it may be possible to provide an excellent and unique effect of protecting the optical fiber coiled cord and the optical connectors connected to the optical fiber coiled cord from breakage due to excessive stretching.

In the Office Action, the Examiner surprisingly alleges that Okada discloses an optical

10/558,890
PHCF-04045US
HIR.164

fiber coiled cord, including an optical fiber cord (1) spirally bent for having a coil shape for being longitudinally stretchable (FIG. 1); and a stretch length control member for limiting a longitudinal elongation (Abstract).

However, as described on page 1, right column, line 18 to page 2, left upper column, line 4, the object of Okada is to provide a novel optical transmission wire that has a sufficient stretching functions and less possibility of disconnection, for eliminating a disadvantage of the conventional device. In the conventional device, when a small apparatus connected to a terminal of an optical transmission line comprising an optical cable is dislocated, the stretching of the optical transmission line is not sufficient (namely, the stretch length is limited), so that the optical transmission line may be disconnected. Further, since the stretching of the optical transmission line is not sufficient, when an external force is applied to the optical transmission line, the optical transmission line may be disconnected. Therefore, in Okada, the optical transmission line (optical cable) is spirally bent for having a coil shape for being freely stretchable.

Accordingly, the technical ideal of Okada may be considered to be completely opposite to that of the claimed invention. Therefore, Okada fail to disclose or to suggest that the stretch length control member for limiting a longitudinal elongation of an optical fiber cord. In addition, there is no motivation to provide Okada with the stretch length control member for limiting a longitudinal elongation.

Presumably the Examiner is asserting that a cushioning material (4) or a central body (6) of Okada may correspond to the stretch length control member for limiting a longitudinal elongation. However, in Okada, the cushioning material (4) is provided for protecting a strand (G) against stretching, winding and twisting forces that is applied from the outside. In other words, soft fibrous material, foamed resin, or high viscosity liquid is applied to the outside of the strand (G) for absorbing the external forces.

Further, if the cushioning material or central body functions as the length control member for limiting a longitudinal elongation, when the small apparatus connected to the optical transmission line which is spirally bent (coil) is dislocated, the stretching of the

10/558,890
PHCF-04045US
HIR.164

optical transmission line will be insufficient, thereby causing a risk of disconnection. This result will be opposed to the object of Okada.

Still further, Okada neither discloses nor suggests that the stretch length control member may include a ball chain, especially a metallic ball chain. Accordingly, claims 6 to 11 are certainly not anticipated by Okada.

Therefore, Applicant submits that there are features of the claimed invention that are not taught or suggested by Okada. Therefore, the Examiner is respectfully requested to withdraw this rejection.

B. Gorni

The Examiner alleges that Okada would have been combined with Gorni to form the invention of claims 12 and 13. Applicant submits, however, that these alleged references would not have been combined and even if combined, the alleged combination would not teach or suggest each and every feature of the claimed invention.

Gorni discloses a unit 100 having a portion of holey optical fiber 12 having a length including a core region 13 and a cladding region 14 (Gorni at Abstract).

However, Applicant submits that these alleged references are unrelated, and no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the alleged references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these alleged references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the alleged references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, Applicant submits that neither Okada, nor Gorni, nor any alleged combination thereof teaches or suggests "*a stretch length control member for limiting a longitudinal elongation of said optical fiber cord*", as recited, for example, in claim 6

10/558,890
PHCF-04045US
HIR.164

(Application at Figures 5, 6(a) and 6(b); page 10, line 3-page 11, line 29). As noted above, this may help to inhibit a breakage of the cord or any connector connected to the cord (Application at page 11, lines 21-29).

Clearly, this feature is not taught or suggested by Gorni.

Indeed, Gorni simply discloses a reconfigurable unit for compensating the chromatic dispersion comprising a portion of holey optical fiber. However, like Okada, Gorni fails to disclose or to suggest an optical fiber coiled cord including a stretch length control member for limiting a longitudinal elongation of an optical fiber cord.

Indeed, the purpose of Gorni is to compensate the chromatic dispersion in an optical fiber. Gorni is not concerned with a tensile force causing a breakage of an optical fiber cord or a connector connected to the cord. Moreover, nowhere does Gorni teach or suggest any manner of limiting an elongation of an optical fiber cord.

Thus, Gorni clearly does not make up for the deficiencies in Okada. Therefore, it would not have been obvious for those skilled in the art to provide the present invention from a combination of the optical transmission wire of Okada and the optical holey fiber of Gorni.

Therefore, Applicant would submit that these alleged references would not have been combined and even if combined, the alleged combination would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 6-25, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

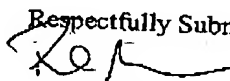
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview

10/558,890
PHCF-04045US
HIR.164

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: 1/31/07

Respectfully Submitted,

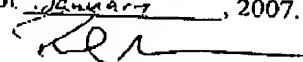


Phillip E. Miller, Esq.
Registration No. 46,060

McGinn IP Law Group, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817
(703) 761-4100
Customer No. 21254

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment was filed by facsimile with the United States Patent and Trademark Office, Examiner Jennifer Doan, Group Art Unit # 2874 at fax number (571) 273-8300 this 31st day of January, 2007.



Phillip E. Miller
Reg. No. 46,060